I ON SOME UNDESCRIBED APHIDES FROM THE COLLECTION OF THE INDIAN MUSEUM.

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During the course of the years 1913 to 1915, Mr. F. H. Gravely had the kindness to submit to me for investigation and determination some 60 tubes of Aphididae from the collections of the Indian Museum. Some of the specimens contained therein had already been determined by Mr. Buckton; many others proved to be well-known species, already described either from Europe or from other tropical countries. Three of them however, appeared to me to be new to science. With the kind permission of the Superintendent of the Indian Museum I am giving here the descriptions of these new species.

Rhopalosiphum indicum, sp. nov.

Apterous viviparous female.

Measurements.

Length of body	 4.40	mm.
Breadth of body	 2.20	
Length of antennae	 4.30	, ,
Length of siphunculi	 1.03	,,
Length of cauda	 0.47	,,

Colour.—Body light reddish-brown. Eyes black. Antennae black. Legs brownish-black, the base of the femur more yellowish. Siphunculi dark brown. Cauda light reddish-brown.

Morphological characters ¹.—Body ovate, slightly arched; dorsum with only a few very short hairs, integument with distinct reticulation.

Antennae nearly as long as the body, with a few short hairs; relative lengths of the last antennal joints about as: 70. 45. 34. 12. 58. The third antennal joint bears at its base some 5 small circular sensoriae. Frontal tubercles fairly large, distinctly protruding and rounded on the inner side.

Rostrum reaching to the second pair of coxae.

Siphunculi relatively short, only slightly swollen, considerably constricted near the tip, with a fine reticulation only at the

¹ Notes from specimen in alcohol.

extreme top-end. Cauda short, club-shaped, about half as long as the cornicles.

Legs fairly long, with a few short hairs.

Biology.-Collected in large numbers on the shoots of an unknown plant. Only wingless females and numerous larvae were captured.

Locality .- Kurseong, Darjeeling (4700 feet), 24-xi-1910.

Types in the collection of the Indian Museum, Calcutta; labelled no. 0602/10.

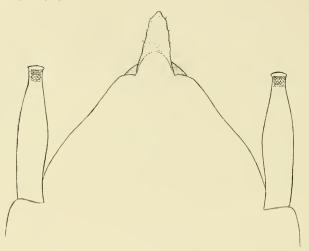


FIG. 1.-Rhopalosiphum indicum, sp. nov. Hind part of body of apterous female (dorsal view) \times 50.

Trichosiphum minutum, sp. nov.

Alate viviparous temale.

Measurements.

Length of body		2'07 mm.
Breadth of body		0.86 ,,
Length of antennae		1·98 ,,
Length of siphunculi	- ,	I'53 ,,
Expanse of wings		7.70 ,,

Colour.-Head and thorax brown, abdomen brownish-yellow. Eyes red. Antennae black. Legs yellowish. Siphunculi yellowishbrown. Wings hyaline.

Morphological characters¹.-Body elongate, with the forehead, the prothorax and the sides of the body clothed with long bristles.

Antennae nearly as long as the body, with numerous bristles, seven-jointed; relative lengths of the five last antennal joints about as: 40. 13. 15. 12. 16. The third antennal joint bears on

¹ Notes from specimen in alcohol.

1916.]

its whole length about 20 sensoriae; these are broadly oval and occupy nearly half of the antennal circumference.

Rostrum slender, reaching to the third pair of coxae.

Siphunculi very long, about $\frac{3}{4}$ of the whole length of the body, cylindrical, thin, with numerous fine bristles. Cauda obsolete, the last abdominal segment broadly rounded, without a small point at the apex. Rudimentary gonapophyses apparently 3.

Wings with the same venation as in the genus *Greenidea*, with the *media* II curved. Hooking-hairs 2.

Biology.—The aphids described above were collected on a jungle creeper. Only a number of nymphs and a few winged individuals were caught.

Locality.-Kurseong, Darjeeling (4700 feet).

Types in the collection of the Indian Museum, Calcutta; labelled no. 9620/19.

NOTE.

In the genus *Trichosiphum* (Perg.), v. d. G. I include those species that differ from *Greenidea*, Schout., in having the caudal segment broadly rounded, not protruding into a small point like the species of the genus *Greenidea*.

Pterochlorus tropicalis, sp. nov.

Apterous viviparous female.

Measurements.

Length of body	 5.40	mm.
Breadth of body	 2'90	,,
Length of antennae	2.70	
Siphunculi (diam.)	 0.14	2 2

Colour.—Head and prothorax brownish-black; the rest of the body greyish, with four longitudinal rows of minute black dots on the dorsum. Eyes, antennae and legs black. Siphunculi surrounded by a broad black ring; caudal segment brownish-black.

Morphological characters¹.—Body broadly oval, slightly arched, clothed with numerous fine, short hairs.

Antennae half as long as the body, six-jointed, with numerous short hairs; relative lengths of the last four joints about as: 55. 23. 18. 11.

Distribution of sensoriae on the different joints mostly as follows: III₉ IV₅ V₁ VI₁ (+4). The secondary sensoriae are round and small. *Processus terminalis* fairly long, about $\frac{1}{3}$ of the length of the entire sixth joint.

Rostrum long, nearly reaching halfway to the ventral part of the abdomen.

Siphunculi only very slightly protruding, nearly reduced to pores. Caudal segment not constricted at the base, nearly obsolete. Rudimentary gonapophyses 3.

¹ Notes from specimen in alcohol.

Legs long, especially the hind shins, with numerous short fine hairs.

Alate viviparous female.

Measurements.

Length of body		5.02	mm.
Breadth of body		2.02	
Length of antennae		2.22	,,
Siphunculi (diam.)		0.13	,,
Expanse of wings	• •	12.20	,,

Colour.—Head light brownish, thorax black, abdomen greyish. Eyes black. Antennae and legs black. Siphunculi surrounded by a broad dark ring; caudal segment black.

Forewings beautifully tinged with brown; the following parts only are hyaline: the basal part of the radial cell, a small stretch from the base of the *media* I to the first furcation, a larger one from the first furcation point of the *media* I to the top of the

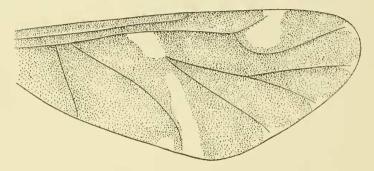


FIG. 2.—*Pterochlorus tropicalis,* sp. nov. Forewing of alate female, \times 60.

media II, the tips of all veins except the *cubitus* and the base of the forewing itself. The hind wings are uniformly light brownish.

Morphological characters¹.—Body clothed with numerous fine, short hairs.

Antennae about half as long as the body; relative lengths of the four last antennal joints about as: 50. 25. 24. 15. The distribution of sensoriae on the different joints is as follows: III 12-16 IV 5-7 V 1 VI 1 (+6). The secondary sensoriae are circular and 100 derately small.

Rostrum, siphunculi, etc. as in the apterous female.

Wings with the normal *Pterochlorus*-venation, the *media* II distinctly curved. Hooking-hairs 6 in number.

Foodplant.-Unknown.

Locality.—Dibrugarh, N.-E. Assam (Abor Exped.), 20-xi-1911. Types in the collection of the Indian Museum, Calcutta; labelled no. 4695/20.

¹ Notes from specimen in alcohol.